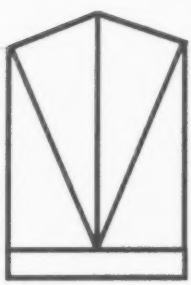
AF900-7.1 F (A) 3188

Shipbuilders
Council of
America

1987 IN REVIEW



SHIP CONSTRUCTION REPORT

This publication is the first of a series of quarterly statistical reports to be issued by the Shipbuilders Council of America, which will analyze the following issues on an annual basis. The schedule set for these reports is as follows:

March:	New Construction
June:	Ship Repair
September:	Manpower and Labor Issues
December:	Contracts/Financial

Shipbuilders Council of America
1110 Vermont Avenue, NW
Washington, DC 20005-3553
202-775-9060

OVERVIEW
1987

For American shipbuilders, 1987 was a year of continued decline. Employment levels dropped to 80,000 production workers from the 1986 level of 85,000. The number of facilities declined to 69 from the 1986 level of 74. This occurred in the face of increased funding of Navy and other government agency programs. In fact, government sources count for nearly 95% of the workload in American shipyards.

When government fiscal resources are expanding, shipyard workload supported by government programs would appear to give the impression that all should be well with the industry. As the data in this report clearly indicates, Navy programs have had a significant impact on the U.S. orderbook. Since the Reagan Administration came into office (1981), 141 naval vessels have been contracted for in the private sector. In the previous seven-year period (1974-1980) of both Republican and Democratic Administrations, the total number of naval vessels ordered was 116. Yet, employment levels have been steadily falling from a peak achieved in 1978 and have been in their sharpest decline since President Ronald Reagan came into office.

Why has this occurred? Decline has occurred because of the failure of the government to present a comprehensive maritime promotional package. In the same seven-year period from 1981-1987, orders were placed for 20 commercial vessels. During the 1974-1980 period, orders were placed for 112 commercial ships. Taken together, combined naval and commercial orders for 161 ships were placed in the 1981-1987 period, compared to 228 ships ordered during 1974-1980 period. In terms of ship orders, this represents a decline of 29% in total ships ordered in the current period over 1974-1980.

Obviously, ship orders alone do not tell the whole story. Current contracts for Navy vessels would appear to create a reasonable backlog in terms of funding. But, the contracts are for technologically complicated combatants. These ships require greater funding on an individual ship basis than was the case in the 1970s. In reality, declining ship orders indicate that the market is concentrating and unstable, even though contract values appear to be high. Thus, ship orders can be an adequate measure of the ability of a market to be sustained both in breadth and depth.

Obviously, the failure of the commercial market is attributable to the fact that American yards must compete in an international market dominated by governments, not firms. When production costs in foreign shipyards are allowed to be offset through direct and indirect means, it becomes impossible for unsubsidized American shipbuilders to compete on a price basis. Yet, the Administration remains silent on the characteristics of the imbalances in international shipbuilding and trade practices.

There is some hope for recovery. The report of the Commission on Merchant Marine and Defense has structured proposals that would link ship operating system reforms with a government shipbuilding program. While this program requires an initial outlay of federal budget dollars, which will be problematical in this environment, there is a reasonable expectation that this program could be forthcoming. It must be linked to tighter enforcement of government cargo preference schemes, which the new fleet can be capable of carrying. These efforts are necessary, according to the Commission, to ensure that the civil infrastructure needed to support potential mobilization requirements will continue to be in place. Without such an effort, continued decline will be evident in the future.

Finally, industry must help itself by turning greater attention to export markets. As the report data clearly shows, our industrial capability is in military shipbuilding. American shipbuilders have never had the support of their government to diplomatically assist them in securing international contracts. We are the finest warship builders in the world. Governmental policies that hinder or fail to support our efforts in this regard must be changed. Government can share in the benefits of increased orders to U.S. yards through the spreading of overhead and other costs, which can have a positive benefit in terms of overall ship costs to the Navy and other government agencies.

While 1987 provided additional governmental workload balanced by further employment decline and shipyard closure, there is increasing desire of U.S. shipbuilders to find alternative markets. Policies to support these efforts will hopefully come from a change in political leadership.

John J. Stocker
President

$2,288.0 M, 1991 - $696.0 M, 1992 - $201.5 M and 1993 - over two billion dollars. As budget pressure intensifies in the next few years, full funding of this program in FY 1988 will pay important dividends to the remainder of the shipbuilding industry.

The Senate's program was fully supported in the Continuing Resolution for fiscal year 1988 and the total funding of $16.1554 billion is the highest since fiscal year 1983 when the GEORGE WASHINGTON and the ABRAHAM LINCOLN were purchased in the same year. In sum, the President lost six ships (three DDG-51, three MCM) and gained five (two CVN, three CG-47) for a net of fifteen new construction ships and four conversions.

While many individuals worked very hard to bring this fully funded shipbuilding budget to fruition, perhaps no one deserves more credit than the Dean of the Senate, Senator John C. Stennis (D-MS), the chairman of the Senate Appropriations Committee as well as the Defense Appropriations Subcommittee. His contributions were recognized by amendment to the FY 1988 Continuing Resolution which recommended naming one of the two FY 1988 carriers for the Senator.

As a result of the FY 1988 legislation, and as of February 1, 1988, 85 ships are on order for the Navy in 16 different shipyards around the nation with 13 remaining to be awarded. The value of these existing contracts at time of award was $19.8 billion. Given progress to date on these ships, yard backlog is estimated to be $10.5 billion with approximately $4.5 - $5.5 billion remaining to be awarded to shipyards from the FY 1988 appropriation. To date in FY 1988, the Trident submarine has been awarded to the Electric Boat Division of General Dynamics Corporation for $644 million and the LHD-3,the third amphibious assault ship, was awarded to Ingalls Shipbuilding Inc. for $352.7 million.

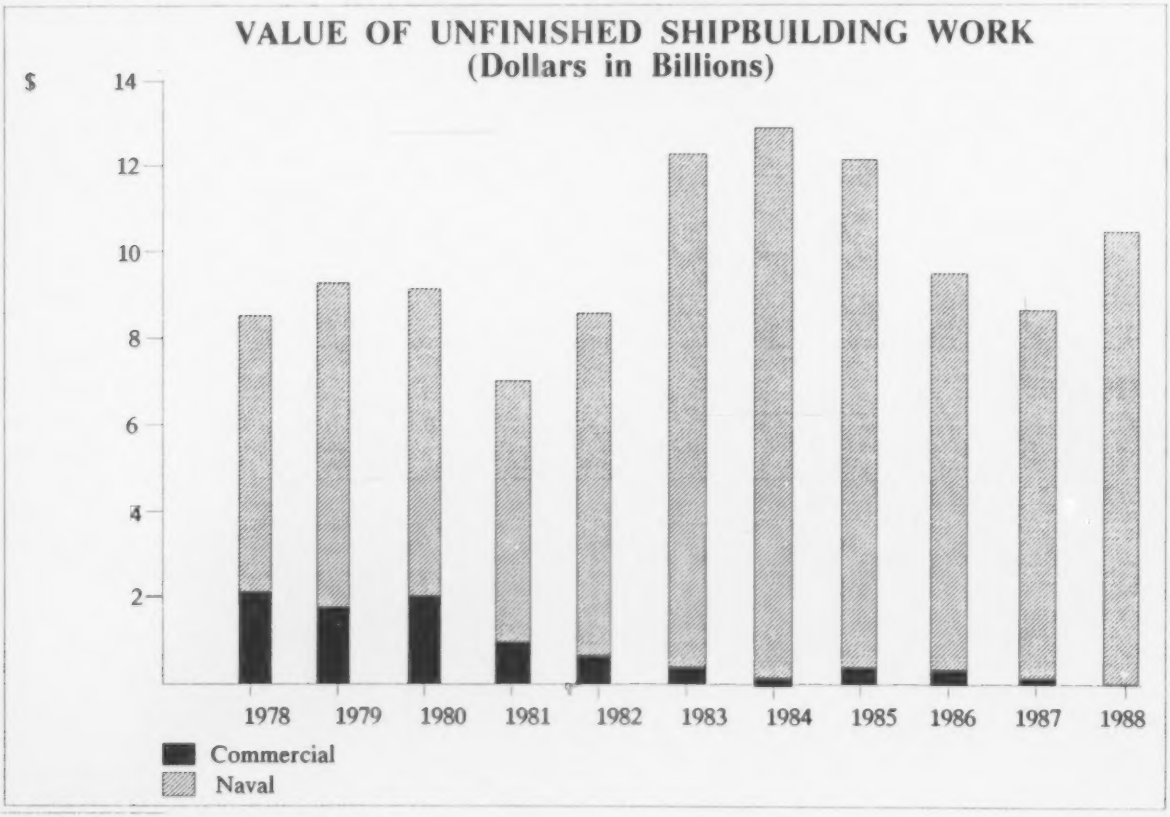


FIGURE 1

Approximate dollar value of unfinished commercial and naval shipbuilding work in U.S. private shipyards as of January 1, 1978-87 and February 1, 1988.

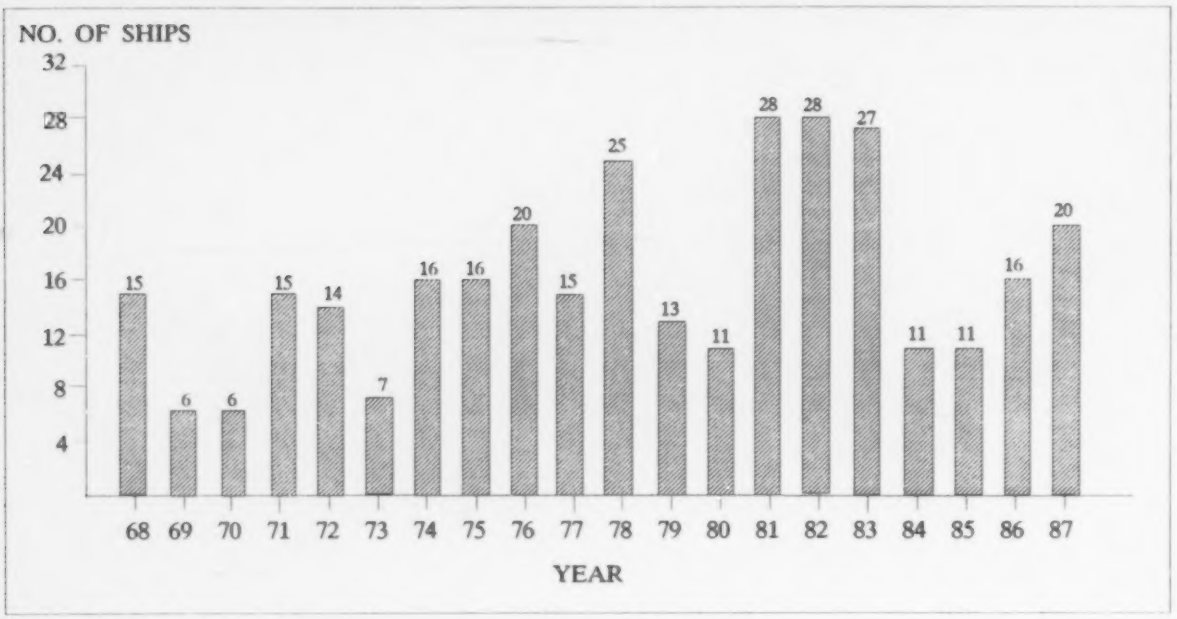
SCN FOUR YEAR PLAN
FY 89 - FY 92
($ in millions)

DoD has not revised to reflect FY 1988 Appropriation. *

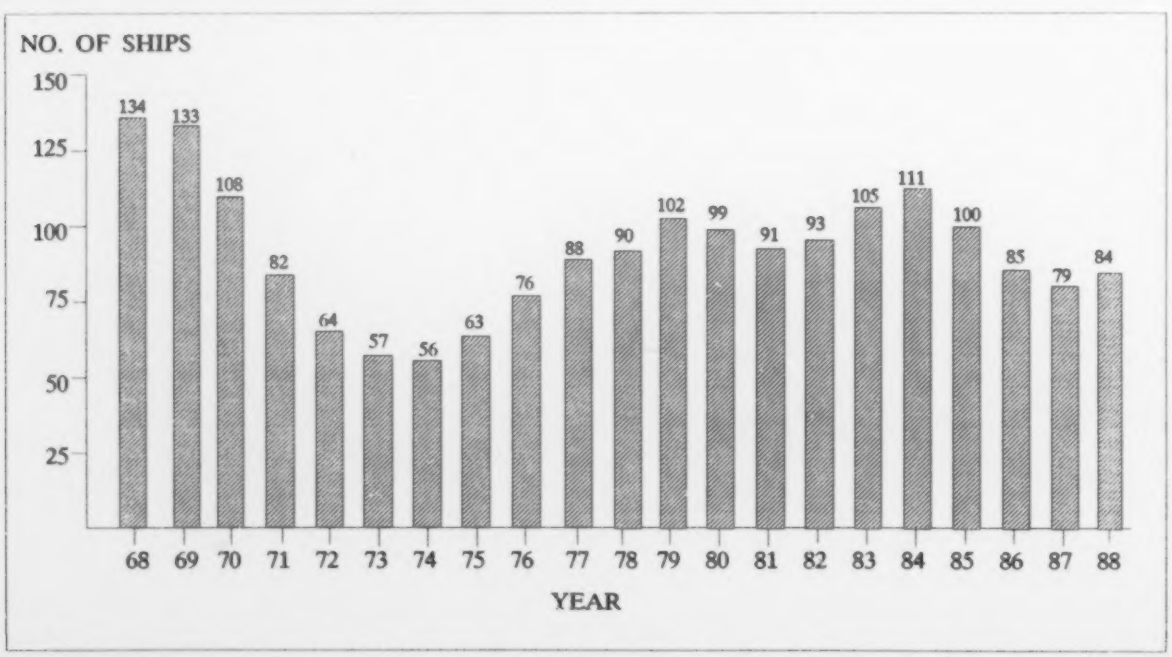
	FY 89	FY 90	FY 91	FY 92
NEW CONSTRUCTION				
TRIDENT	1/1368.1	1/1482.4	1/1546.7	1/1597.0
CVN	-	1/2288.0	696.0	201.5
SSN 688	2/1493.6	2/1503.8	2/1438.3	1/801.2
SSN 21	1/1488.0	583.0	2/2916.6	2/2953.4
CG 47	-	1/951.3	-	-
DDG 5	3/2207.3	3/2394.4	5/3972.6	6/4982.1
LHD 1	1/737.5	41.8	1/1136.5	208.2
LSD 41 (CV)	-	1/294.1	1/304.0	2/595.3
MCM	-	-	-	-
MHC	2/197.2	3/232.6	3/246.4	4/313.7
TAO	2/284.9	2/312.0	1/158.9	-
TAGOS	3/159.6	3/176.5	2/126.7	-
AE	-	-	1/418.0	1/327.2
AOE 6	1/363.9	-	2/903.2	-
ARS	-	1/145.5	-	-
AGOR/TAGS	1/74.0	2/127.4	4/252.1	-
PXM	-	1/114.4	-	4/404.6
LCAC	(9)/192.6	(12)/274.4	(12)/282.3	(12)/289.5
CONVERSIONS				
CV SLEP	135.4	102.8	1/582.4	211.6
AO (JUMBO C)	2/84.9	1/40.3	-	-
TACS (C)	-	-	-	-
OTHER				
SERVICE CRAFT	-	64.5	72.0	151.2
LANDING CRAFT	-	21.9	105.9	107.9
STRAT SEALIFT	-	62.8	13.8	36.9
SEALIFT ENHANCE	-	21.4	21.1	49.4
OUTFITTING	214.7	303.5	273.9	308.6
POST DELIVERY	128.4	220.7	163.6	210.4
TOTAL	9,130.1	11,759.5	15,631.0	13,749.7
SHIP COUNT				
NC/C	17/2	21/1	25/1	21/0

* We do not anticipate a new five year plan until the FY 1990/91 budget is submitted in January 1989.

NEW NAVAL VESSELS CONTRACTED FOR WITH U.S. PRIVATE SHIPYARDS EACH CALENDAR YEAR



NEW NAVAL VESSELS UNDER CONSTRUCTION OR ON ORDER AT U.S. PRIVATE SHIPYARDS AS OF JANUARY 1, EACH YEAR



NEW NAVAL VESSELS UNDER CONSTRUCTION OR ON ORDER IN U.S. PRIVATE SHIPYARDS
(1,000 Light Displacement Tons and Over)

	Jan. 1984		Jan. 1985		Jan. 1986		Jan. 1987		Jan. 1988	
	No.	LDT	No.	LDT	No.	LDT	No.	LDT	No.	LDT
Fast Combat Support Ship (AOE)									1	19,700
Repair Drydock (ARDM)	1	5,300	1	5,300	1	5,300				
Salvage Ship (ARS)	4	10,900	4	10,900	2	5,450				
Guided Missile Cruiser (CG)	12	106,920	14	124,740	12	106,920	13	115,830	13	115,830
Aircraft Carrier (Nuclear) (CVN)	3	213,000	3	213,000	3	213,000	2	142,000	2	142,000
Guided Missile Destroyer (DDG)					1	8,300	1	8,300	3	24,900
Guided Missile Frigate (FFG)	17	46,359	10	27,270	5	13,635	3	8,181	1	2,727
Dock Landing Ship (LSD)	4	44,400	6	66,600	7	77,700	6	66,600	5	55,500
Amphibious Assault Ship (LHD)			1	28,500	1	28,500	2	57,000	3	85,500
Coastal Minehunter Ship (MHC)									1	780
Mine Countermeasures Ship (MCM)	5	5,000	5	5,000	5	5,000	8	8,000	7	7,000
Ballistic Missile Submarine (SSBN)	8	100,000	6	75,000	5	62,500	5	62,500	6	75,000
Attack Submarine (SSN)	19	114,000	18	108,000	15	90,000	17	102,000	19	114,000
Oiler (T-5)	5	45,000	5	45,000	2	18,000				
Ocean Surveillance Ship (T-AGOS)(Monohull)	12	19,200	9	14,400	7	11,200	4	6,400	8	12,800
Ocean Surveillance Ship (T-AGOS)(SWATH)							1	2,486	1	2,486
Oceanographic Survey Ship (T-AGS)					2	17,620	2	17,620	2	17,620
Prepositioning Ship (T-AKX)	5	113,500	5	113,500	2	45,400				
Fleet Oiler (T-AO)	4	38,000	4	38,000	7	66,500	8	76,000	7	66,500
Cable Repair Ship (T-ARC)	1	8,430								
USCG Medium Endurance Cutter (WMEC)	11	13,200	9	10,800	8	9,600	7	8,400	5	6,000
TOTALS	111	883,209	100	886,010	85	784,625	79	681,317	84	748,343

NEW NAVAL COMBATANT AND AUXILIARY VESSELS CONTRACTED FOR WITH U.S. PRIVATE SHIPYARDS
(1,000 Light Displacement Tons and Over)

Calendar Year	Total Vessels	Combatant	Auxiliary	Contract Yards	Light Disp. Tons	Initial Shipyard Contract $ Value
1968	15	10	5	4	152,591	638,238,500
1969	6	6	0	3	79,533	453,180,000
1970	6	6	0	2	132,000	758,100,000
1971	15	15	0	3	88,044	1,055,000,000
1972	14	13	1	4	85,522	852,204,347
1973	7	7	0	2	38,727	512,345,000
1974	16	14	2	4	171,100	1,387,375,100
1975	16	13	3	6	106,197	1,677,241,000
1976	20	14	6	8	91,322	1,254,169,000
1977	15	12	3	8	88,616	1,575,271,000
1978	25	20	5	8	119,478	2,506,400,000
1979	13	11	2	6	60,646	1,356,752,936
1980	11	8	3	6	101,072	1,933,654,550
1981	28	13	15	10	97,307	2,842,300,500
1982	28	18	10	11	321,040	7,777,200,000
1983	27	12	15	10	431,760	5,041,400,000
1984	11	11	0	6	104,157	2,848,800,000
1985	11	4	7	7	92,320	1,679,400,000
1986	16	12	4	9	117,816	3,034,868,414
1987	20	12	8	10	127,310	3,521,898,835

U.S. COMMERCIAL SHIPBUILDING

On November 9, 1987, Bay Shipbuilding Corporation, Sturgeon Bay, WI delivered the last of three 1,400 TEU containerships to Sea-Land Services, Inc., Iselin, NJ. With the delivery of the KODIAK, no oceangoing merchant vessels are being constructed in the United States. The vessel, with her sister ships, is deployed in Sea-Land's West Coast/Alaska Service.

In contrast to this bleak situation, twelve years ago the order book of domestic shipbuilders consisted of 155 vessels. As the accompanying chart (Figure 2) indicates, the breakdown between Navy and commercial ships was balanced, namely, 76 naval and 79 merchant ships on order.

These figures do not mean that United States ship owners did not place any orders for new vessels in calendar year 1987. On the contrary, U.S. owners placed orders with foreign shipyards for 29 large oceangoing vessels. The total contract value was approximately $1.5 billion and the mix of ships consisted of containerships, tankers, dry bulkers and cruise ships.

Three sources of hope exist on the horizon for commercial shipyards. The first is the announced plan of Matson Navigation Company, San Francisco, CA to build two containerships and a container barge to serve the West Coast/Hawaiian trade. Since this is considered a coastwise movement, existing statutes require that the ships be constructed in domestic shipyards. The possible entry of American President Lines, Ltd., Oakland, CA into the Westbound leg of the trade with three containerships could force Matson to rethink its plan. Maritime Administration permission is required because APL is a subsidized operator.

The second is the Procure and Charter program recommended by the Commission on Merchant Marine and Defense in its year-end report to the President and Congress. This program is designed to produce commercially viable yet military useful cargo ships both for mobilization requirements and commercial service. The Commission recommends the construction in domestic shipyards of "at least" 12 such vessels per year. The program would be funded through the Maritime Administration budget. If funding is forthcoming, it would represent the first real growth to the agency's budget since the Reagan Administration took office in January 1981.

The final source is the "Build and Charter" program for sealift tankers authorized by the Congress in both Public Law 100-180 and Public Law 100-202. These statutes authorize the Navy to undertake a build and charter of six clean product tankers to replace the nine sealift tankers presently serving the point-to-point oil carriage requirements of the Navy.

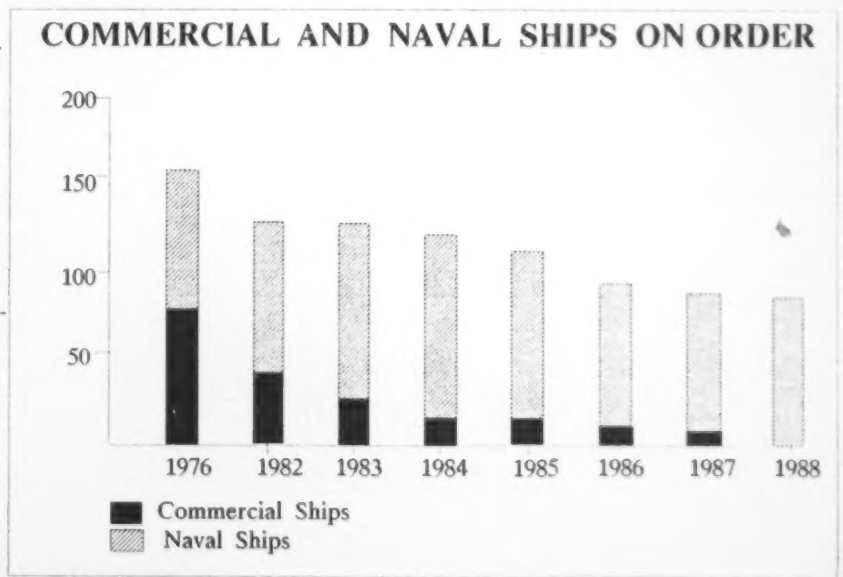
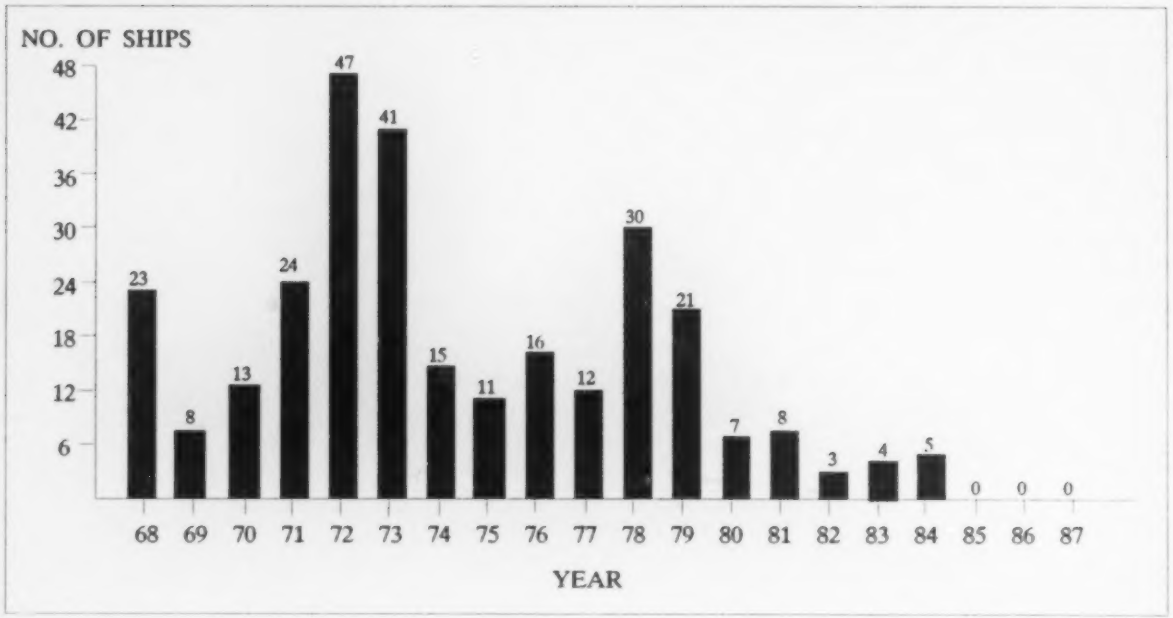


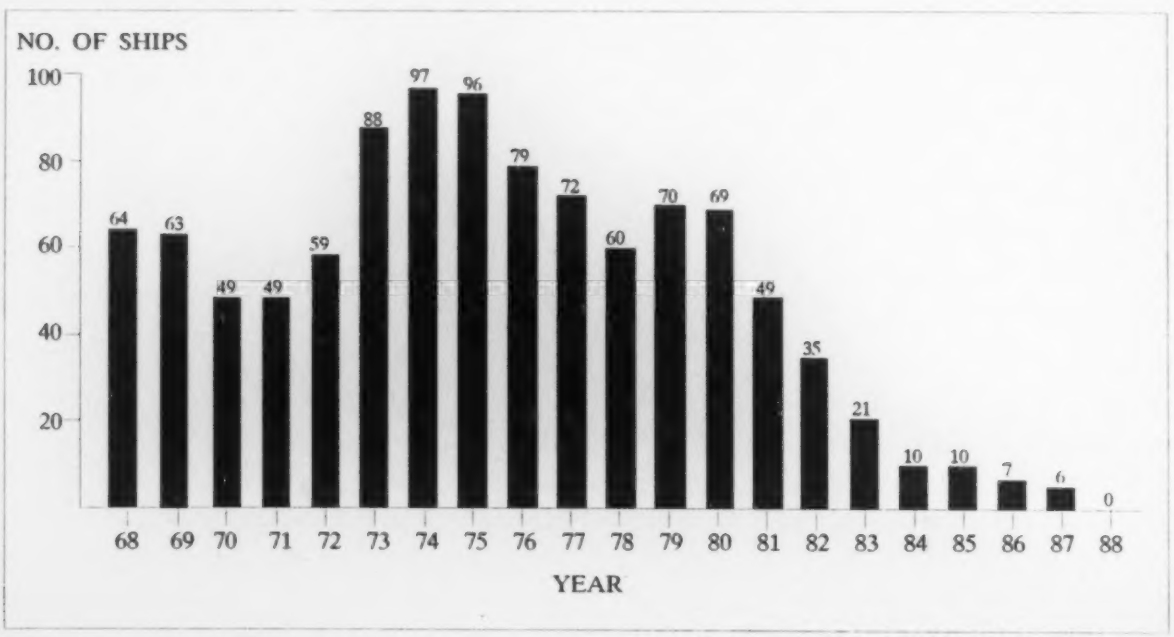
Figure 2

Number of U.S. commercial and naval ships on order as of January 1, Each Year.

NEW MERCHANT VESSELS CONTRACTED FOR WITH U.S. PRIVATE SHIPYARDS EACH CALENDAR YEAR



NEW MERCHANT VESSELS UNDER CONSTRUCTION OR ON ORDER AT U.S. PRIVATE SHIPYARDS AS OF JANUARY 1, EACH YEAR



NEW MERCHANT VESSELS UNDER CONSTRUCTION OR ON ORDER IN U.S. PRIVATE SHIPYARDS
(1,000 Gross Tons and Over)

	Jan. 1984		Jan. 1985		Jan. 1986		Jan. 1987		Jan. 1988	
	No.	G.T.	No.	G.T.	No.	G.T.	No.	G.T.	No.	G.T.
Ferry	2	3,215								
Passenger Vessel			1	1,100						
Passenger and Vehicle Ferry			1	2,100						
Tanker	3	75,000	2	179,400	2	179,400	1	89,700		
Tug/Barge	2	50,000								
Containership			3	48,000	3	48,000	3	48,000		
Hopper Dredge	1	3,000	1	3,000						
Incinerator Ship	2	9,700	2	9,700	2	9,700	2	9,700	—	—
Total	10	140,915	10	243,300	7	237,100	6	147,400	0	0

NEW MERCHANT VESSELS CONTRACTED FOR WITH U.S. PRIVATE SHIPYARDS*
(1,000 Gross Tons and Over)

			Construction Subsidy		Contracted for Government Account		For U.S. Flag No Subsidy	
	No.	Total Gross Tons	No.	G.T.	No.	G.T.	No.	G.T.
1968	23	614,400	11	209,800			12	404,600
1969	8	309,000	2	36,000			6	273,000
1970	13	579,500	8	358,100			5	221,400
1971	24	617,000	10	416,100	1	5,000	13	195,900
1972	47	1,537,900	25	1,218,400			22	319,500
1973	41	1,978,000	15	985,200	1	5,000	25	987,500
1974	15	1,113,300	2	398,000			13	715,300
1975	11	507,900					11	507,900
1976	16	339,400	6	120,300			10	219,100
1977	12	258,000	9	245,000			3	13,000
1978	30	394,000	10	196,500			20	197,500
1979	21	487,200	4	140,000			17	347,200
1980	7	116,200					7	116,200
1981	8	148,000	2	42,000			6	106,000
1982	3	12,200					3	12,200
1983	4	7,200					4	7,200
1984	5	227,400					5	227,400
1985	0	0						
1986	0	0						
1987	0	0						

*New contracts that were cancelled are not included in this table.

INTERNATIONAL COMMERCIAL SHIPBUILDING

Although the U.S. commercial shipbuilding industry experienced severe financial setbacks in 1987, several countries overseas maintained full merchant orderbooks. The collapse of the U.S. orderbook to zero came as no surprise to U.S. shipbuilders since the competition from Asian and European shipbuilders has been a mainstay for the past ten to twenty years. The fact that three of the top five commercial orderbooks as of January 1988 represent Asian countries is proof of the outcome of this competition.

Since 1978, Asian shipbuilding nations have, collectively, almost doubled their share of world tonnage from 34% to 65%. Of that 65%, South Korea alone represents about half with 32% or 10,783,410 DWT on order. Its share has increased significantly since January 1987 when it was second with 19% to Japan's 35%. The 75 tankers under construction in seven South Korean yards comprise 78% of the country's total deadweight tons, while the remaining 22% consists of bulkers, containerships, dry cargo ships and ro/ros. With 25% of total world tonnage, Japan ranks number two although thirty-six Japanese builders have 159 ships under construction, the largest of the merchant orderbook backlog. Of the 159 ships, 62 are tankers, 39 are bulkers and 35 are dry cargo ships with 52%, 37% and 3.5% of Japan's DWT, respectively. The People's Republic of China (PRC), the third Asian nation, is fourth with 4% of world tonnage on order in eight shipyards. These three countries, out of the thirty-four in the commercial orderbook, represent 61% of total world tonnage and 41% of the world ships on order.

European shipbuilders represent 29% of world tonnage, a 19% decrease from their 48% share in 1978. Yugoslavia, third in the January 1988 orderbook table, has 1,675,668 DWT or 5% of the world's tonnage on order at six yards. Italy, Spain, Romania and Denmark hold the sixth through ninth positions in the world orderbook, yet as an aggregate, these four nations comprise only 11% of total DWT and almost 15% of orders.

With 5% of world tonnage, South American yards have relinquished 44% of the 9% share they held ten years ago to Asian and European builders. Brazil, however, has maintained a strong market position relative to other

Twenty Year Analysis of the Top Ten Merchant Orderbooks

	1988				1978				1968			
	No.	% of World	DWT	% of World	No.	% of World	DWT	% of World	No.	% of World	DWT	% of World
South Korea	121	14.7	10,783,410	32.0	82	4.2	1,502,714	2.8	5	.2	281,000	.4
Japan	159	19.3	8,445,160	25.0	499	26.0	14,018,822	26.2	472	25.6	24,914,010	40.8
Yugoslavia	44	5.3	1,675,668	5.0	43	2.2	1,117,994	2.1	53	2.8	1,284,900	2.1
PRC	57	6.9	1,404,100	4.0	-	-	-	-	-	-	-	-
Brazil	33	4.0	1,379,570	4.1	128	6.6	4,498,240	8.4	44	2.4	434,250	.7
Italy	30	3.6	1,058,760	3.1	56	2.9	1,880,232	3.5	52	2.8	2,040,760	3.3
Spain	30	3.6	993,610	2.9	123	6.4	3,510,974	6.5	83	4.5	1,744,210	2.8
Romania	32	3.9	891,080	2.6	25	1.3	259,520	.5	30	1.6	150,600	.2
Denmark	29	3.5	866,600	2.5	48	2.5	904,435	1.6	34	1.8	2,258,040	3.7
Taiwan	11	1.3	828,410	2.4	32	1.6	932,289	1.7	6	.3	243,420	.4
US	-	-	-	-	60	3.1	3,467,000	6.5	64	3.4	1,221,000	2.0
World	821		33,427,982		1,918		53,493,593		1,837		61,000,500	

American countries placing fifth with 33 ships of 1,379,570 DWT on order.

Although no longer a major contender in the commercial shipbuilding industry, North America maintains a sliver of the market with .34% of the total DWT on order worldwide, a 96% decrease of its 8% share in 1978. Mexico, with two product tankers and one bulker under construction, has 112,600 DWT on order, while a 4,000 DWT passenger/car ferry on order in a Canadian shipyard keeps our Northern neighbor in the world orderbook.

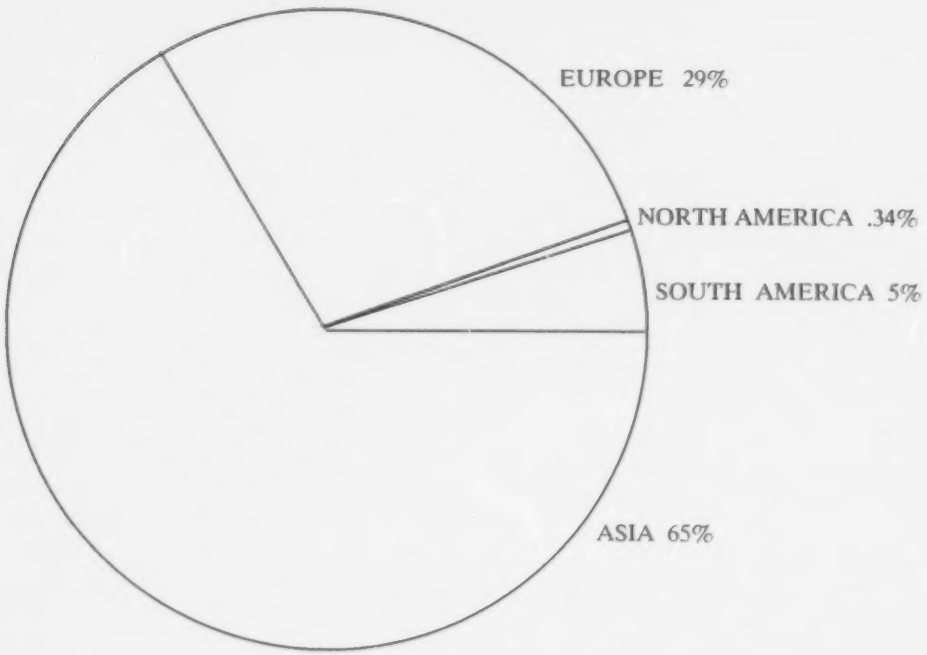
As the table on page 11 indicates, Asian countries have experienced the most significant growth in the commercial shipbuilding segment. From January 1968 to January 1988, South Korean builders expanded their market share of DWT by a staggering 3737% while orders rose 2320% from 5 to 121. PRC, which first appeared on the merchant orderbook in 1980, exhibited a more dramatic growth rate over an eight year period. In January 1980, 2 ships of 32,400 DWT were on order in Chinese shipyards. At the start of 1988, total tonnage stood at 1,404,100, a 4233% increase from 1980 while orders rose by 2750% to 57 during the same period. Although Japanese shipbuilders maintain a quarter of the worldwide commercial shipbuilding industry, orders and tonnage have dropped 68% and 40%, respectively, since 1978.

MERCHANT SHIPS ON ORDER IN WORLD

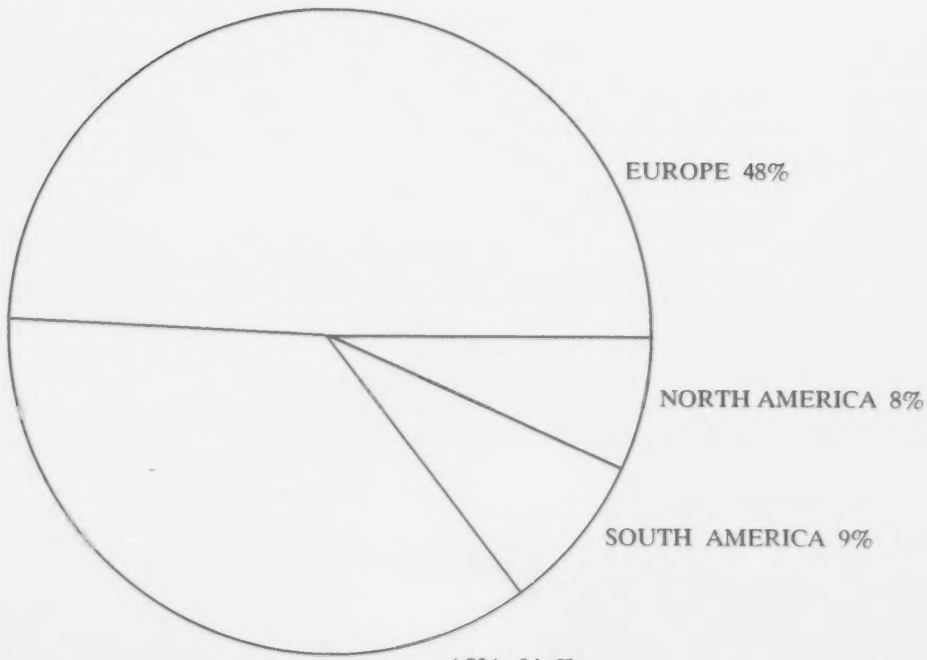
	Europe		Asia		North America *		South America	
Year	No.	DWT	No.	DWT	No.	DWT	No.	DWT
1968	1,193	33,002,950	492	25,549,360	81	1,461,560	52	505,120
1969	1,228	43,380,180	481	29,604,540	78	1,677,570	55	523,990
1970	1,621	58,728,270	523	32,097,930	58	1,484,300	52	516,340
1971	1,758	75,709,310	667	44,548,560	55	1,873,700	60	691,750
1972	1,725	75,186,160	707	58,536,770	82	2,425,900	69	1,555,540
1973	1,368	68,484,300	582	62,727,220	106	3,356,900	56	1,818,540
1974	1,483	102,761,730	970	103,938,970	130	4,762,390	64	2,070,270
1975	1,576	94,121,027	977	99,257,841	134	5,860,240	122	3,883,550
1976	1,234	65,052,073	889	74,813,649	130	5,730,800	206	6,787,265
1977	1,131	40,413,486	772	30,079,866	101	4,907,060	191	6,148,190
1978	997	24,937,407	672	17,445,783	89	4,084,368	154	5,001,100
1979	739	14,226,061	386	9,108,894	81	2,894,600	128	4,122,730
1980	756	15,215,240	470	14,516,096	80	2,035,962	137	4,361,720
1981	868	18,132,876	540	23,934,581	64	1,322,811	126	3,591,570
1982	854	18,759,741	692	29,487,670	49	1,033,185	106	3,281,040
1983	748	17,375,955	568	20,852,876	29	580,650	82	2,786,583
1984	648	13,760,595	898	29,875,490	21	273,282	73	3,016,230
1985	558	10,072,734	780	32,639,896	20	370,150	71	2,896,640
1986	496	8,156,842	514	23,932,122	15	291,060	56	2,511,645
1987	464	8,524,878	472	20,660,216	12	174,766	47	2,445,195
1988	408	9,325,716	367	22,269,290	4	116,600	42	1,719,140
Percent Change	-65.8	-71.7	-25.4	-12.8	-96.3	-92.2	-25.0	+218.0

Sources: Ships on Order, The Motor Ship: 1968-1987
Fairplay: 1988
*SCA: U.S. data

DISTRIBUTION OF COMMERCIAL VESSEL TONNAGE AS OF JANUARY 1, EACH YEAR

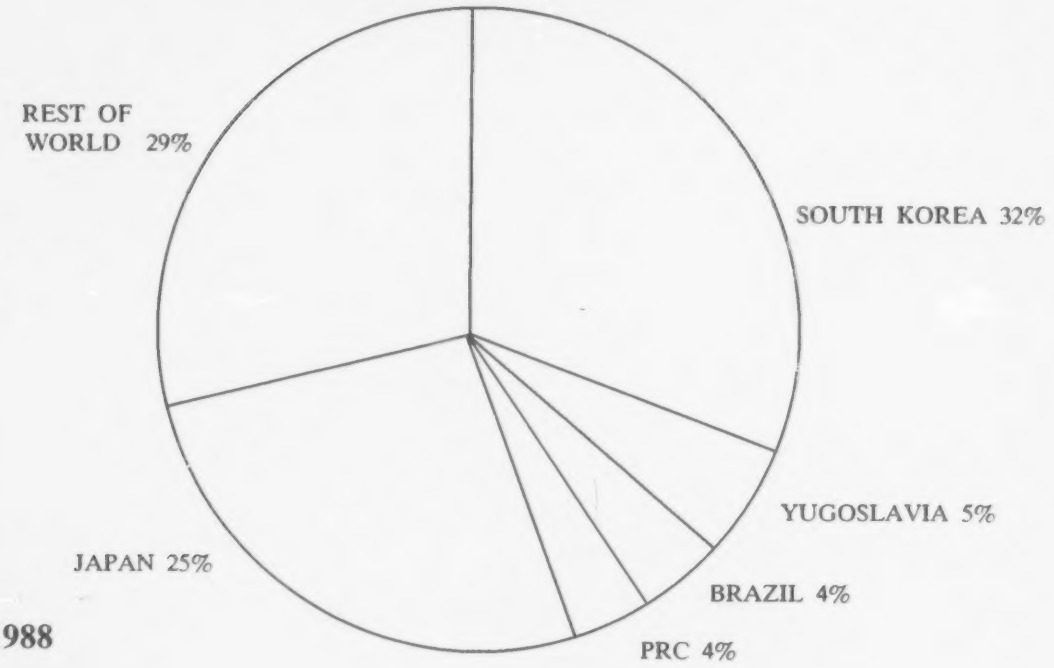


1988

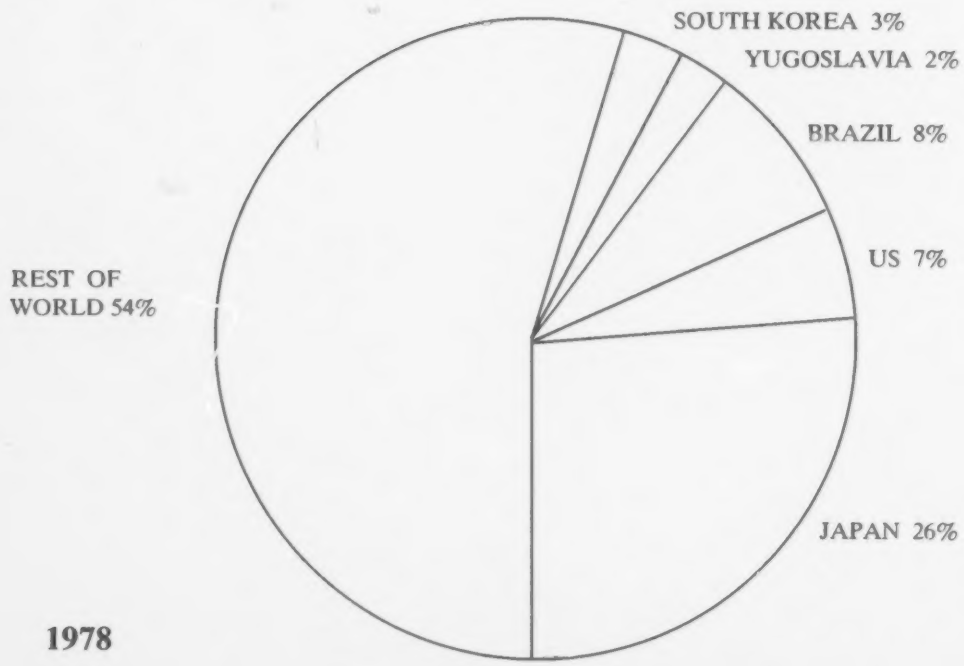


1978

DISTRIBUTION OF COMMERCIAL VESSEL TONNAGE AS OF JANUARY 1, EACH YEAR



1988



1978

MEMBERS & STAFF

REGULAR MEMBERS

ADDSCO Industries, Inc.
Mobile, AL

The American Ship Building Company
Tampa, FL

Avondale Industries, Inc.
New Orleans, LA

Bath Iron Works Corporation
Bath, ME

Bethlehem Steel Corporation
Bethlehem, PA

Capital Marine Corporation
Chester, PA

Continental Maritime Industries, Inc.
San Francisco, CA

General Dynamics Corporation
St. Louis, MO

General Ship Corporation
East Boston, MA

Ingalls Shipbuilding, Inc.
Pascagoula, MS

Jacksonville Shipyards, Inc.
Jacksonville, FL

The Jonathan Corporation
Norfolk, VA

Marinette Marine Corporation
Marinette, WI

McDermott Corporation
New Orleans, LA

Metro Machine Corporation
Norfolk, VA

National Steel & Shipbuilding Company
San Diego, CA

Newport News Shipbuilding
Newport News, VA

Norfolk Shipbuilding & Drydock Corporation
Norfolk, VA

Northwest Marine Iron Works
Portland, OR

Peterson Builders, Inc.
Sturgeon Bay, WI

Robert E. Derecktor of Rhode Island, Inc.
Middletown, RI

Southwest Marine, Inc.
San Diego, CA

Textron Marine Systems
New Orleans, LA

Todd Shipyards Corporation
Seattle, WA

ALLIED INDUSTRIES MEMBERS

Alcoa/TRE
Santa Ana, CA

Bird-Johnson Company
Walpole, MA

Colt Industries, Inc.
Washington, DC

Combustion Engineering, Inc.
Windsor, CT

Dresser Pump Division
Dresser Industries, Inc.
Harrison, NJ

Eaton Corporation
Cutler-Hammer Products
Ashton, MD

General Electric Company
Washington, DC

Hopeman Brothers, Inc.
Waynesboro, VA

IMO Delaval, Inc.
Lawrenceville, NJ

Jamestown Metal Marine Sales, Inc.
Boca Raton, FL

Jered Brown Brothers, Inc.
Troy, MI

Lake Shore, Inc.
Iron Mountain, MI

MacGregor-Navire (USA), Inc.
Cranford, NJ

Raytheon Service Company
Arlington, VA

Sperry Marine, Inc.
Aerospace & Marine Group
Charlottesville, VA

Westinghouse Electric Corporation
Sunnyvale, CA

York International Corporation
York, PA

AFFILIATE MEMBERS

Alpha Technical Services, Inc.
Fairfield, OH

The Bingham Group
Arlington, VA

McLean Contracting Company
Baltimore, MD

PacOrd, Inc.
National City, CA

Poten & Partners, Inc.
New York, NY

Seacoast Electric Supply Corporation
Rye, NY

NAVAL ARCHITECT
MEMBERS

Gibbs & Cox, Inc.
New York, NY

JJH Inc.
Cherry Hill, NJ

John J. McMullen Associates, Inc.
New York, NY

M. Rosenblatt & Son, Inc.
New York, NY

ASSOCIATION MEMBERS

New York and New Jersey Dry
Dock Association
c/o Rodermond Industries
Brooklyn, NY

South Tidewater Association of
Ship Repairers, Inc.
Chesapeake, VA

STAFF

John J. Stocker
President

W. Patrick Morris
Vice President & General Counsel

Silas O. Nunn
Vice President, Programs

Beverly C. Kendall
Secretary & Treasurer

Cynthia L. Brown
Director, Legislative Programs

William G. Kurfehs
Director, Ship Repair Programs

Amy L. Beissner
Manager, Data Systems & Analysis